

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* CLEMENS JUNG, PETER SCHWARZWELLER,  
KONRAD PETRY, and REINHOLD BALTES

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Appeal 2006-3025  
Application 10/714,110  
Technology Center 1700

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Decided: March 29, 2007

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Before CHUNG K. PAK, PETER F. KRATZ, and  
LINDA M. GAUDETTE, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the Examiner's final rejection of claims 2, 8-10, and 12-20, the only claims pending in this application. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

Appellants' invention relates to a method of cleaning dishes. The necessary cleaning temperature and length of cleaning operation are derived from the turbidity of the rinsing liquid and solubility of the soiling of the

dishes. (Specification [0035]). “[T]he value for the solubility of the soiling of the dishes is derived from the water temperature of the rinsing liquid and length of time of the rinse operation until the increase in the turbidity of the rinsing liquid has reached the value zero.” (Specification [0034]).

Independent claim 12 is illustrative of the invention:

12. A method of cleaning dishes in a dishwasher in accordance with a programmed wash cycle implemented by a central control unit and comprising a rinse step where a rinse liquid is recirculated in the dishwasher and a cleaning step where a wash liquid is recirculated in the dishwasher, the method comprising:

determining a solubility of soil on the dishes to be cleaned; and

setting at least one operating parameter of the cleaning step based on the determined solubility.

The Examiner relies on the following prior art references to show unpatentability:

Bashark	US 3,888,269	Jun. 10, 1975
Smith	US 5,586,567	Dec. 24, 1996

Appellants appeal from the Examiner’s rejection of claims 2, 8-10, and 12-20 under 35 U.S.C § 103(a) as unpatentable over Bashark in combination with Smith.<sup>1</sup>

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<sup>1</sup> In the Final Rejection, mailed November 23, 2005, claims 12, 2, 8-10, and 13-20 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/713,305, and claims 12, 16-17, and 19-20 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7-8 of copending Application No. 10/713,304. These rejections were indicated as withdrawn in the Advisory Action, mailed February 1, 2006. Thus,

## ISSUES

The Examiner contends that the claimed method would have been obvious to one of ordinary skill in the art at the time of the invention because determining the solubility of the soil on dishes is inherent in the prior art's measurement of turbidity. Appellants contend that the Examiner's rejection is based on an incorrect finding that turbidity and solubility are equivalent. The issue before us is "has the Examiner provided sufficient evidence to establish that the step of determining solubility of the soil on dishes is inherent in the applied prior art measurement of turbidity?"

For the reasons discussed below, we answer this question in the negative.

## FINDINGS OF FACT

- 1) Bashark is directed to a dishwasher which automatically terminates the dish treating operation by sensing different conditions rather than relying on a time controlled drying cycle. (Col. 2, ll. 46-50).
- 2) Bashark discloses that sensing of turbidity in the dish treating liquid is an indication that the dishes are soiled. (*See* col. 3, ll. 3-19).

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Appellants only address the remaining 35 U.S.C § 103(a) rejection in the Brief (*see* Br. 4, ¶ VI). The Answer is inconsistent regarding a reinstatement of these rejections for purposes of our review in this appeal. (Answer 2 and 4). Therefore, it is unclear whether these rejections have, in fact, been withdrawn. Moreover, since the docketing of this Appeal, U.S. Patent No. 7,086,406 issued on August 8, 2006 from Application No. 10/713,304. Accordingly, we do not reach the provisional grounds of rejection in this Decision, but remand the application to the Examiner for clarification.

- 3) Bashark measures turbidity by sensing light radiation reflected from solids in the dish treating liquid. (Col. 4, ll. 14-20).
- 4) “Control means are associated with the dishwasher which are responsive to the sensed turbidity.” (Bashark, col. 2, ll. 57-59).
- 5) Smith discloses a dishwasher with a turbidity sensing mechanism which measures turbidity of fresh fluid added to the washer and of the fluid at the conclusion of various cycles. (Col. 1, ll. 14-17).
- 6) Smith defines “turbidity” as “a measure of the suspended and/or soluble soils in the fluid that causes light to be scattered or absorbed.” (Col. 3, ll. 51-53).

#### PRINCIPLES OF LAW

- 1) The prima facie case requires that the Examiner initially produce evidence sufficient to support a ruling of obviousness and only then does the burden shift to the applicant. *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788, (Fed. Cir. 1984).
- 2) An Appellant may overcome a rejection by showing insufficient evidence of prima facie obviousness. *See In re Kahn*, 441 F.3d 977, 985-86, 78 USPQ2d 1329, 1335 (Fed. Cir. 2006) .
- 3) When rebuttal evidence is provided, the prima facie case dissolves, and the decision is made on the entirety of the evidence. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)

#### ANALYSIS

The Examiner relies on Bashark for a disclosure of a control system for a dishwasher in which a turbidity sensor is used to determine the

turbidity of the rinse water. (Answer 5). The Examiner concedes that Bashark does not explicitly disclose a step of determining solubility of the soil on the dishes. *Id.* However, the Examiner finds that the step of determining the solubility of the soil as claimed is inherent in the Bashark process. *Id.* The Examiner bases this finding on Smith's teaching that turbidity is a measure of the suspended and/or soluble soils in the fluid and Bashark's disclosure that the degree of turbidity depends on the amount of soil found on the dishes. *Id.*

Appellants argue that the Examiner has improperly equated turbidity with solubility. (Br. 9). Appellants reference the dictionary definitions of turbidity and solubility, pointing out that turbidity is a characteristic of a liquid containing a suspended material, while solubility is a characteristic of the solid material itself. (Br. 9-10). Appellants further direct us to the Specification as proof that magnitude of turbidity alone does not determine solubility. (Br. 10). The Specification teaches that "the solubility of the soil adhering to the dishes is a function of the *temperature* of the rinsing liquid and the *length of time* during the rinse operation until the increase in turbidity is zero." *Id.*

In our view, Appellants have persuasively argued that one of ordinary skill in the art at the time of the invention would not have viewed the applied prior art as disclosing, either explicitly or inherently, a method in which "solubility of soil on the dishes to be cleaned" is measured. Appellants' arguments, though clearly pointing out the differences between turbidity and solubility, have not been addressed by the Examiner. (*See Answer 6*). Accordingly, the Examiner's rejection cannot be sustained.

ORDER

The rejection of claims 2, 8-10, and 12-20 under 35 U.S.C. § 103(a) as unpatentable over Bashark in combination with Smith is reversed.

REMAND TO THE EXAMINER

While we have not sustained the Examiner's rejection of claims 2, 8-10, and 12-20 under 35 U.S.C. § 103(a) for the reasons stated above, it appears to us that the Examiner should: (a) evaluate the propriety of a possible rejection under 35 U.S.C. § 103 in view of Morey et al, US 3,114,253 (*see* Bashark, col. 1, ll. 54-59) either alone or in combination with the prior art dishwashers or inventive dishwasher controls referred to in Bashark and (b) determine whether an operator manual rinse of dishes (for example, using a water spray from a faucet) prior to selection of a pre-programmed operating cycle is a known prior art dishwashing method involving a determination of the solubility of soil on the dishes to be cleaned and, if so, whether such would form a basis for introducing a rejection of any of the appealed claims.

The Application is further remanded to the Examiner to consider unambiguously reintroducing any obviousness-type double patenting grounds of rejection that may still be considered applicable and, if so reintroduced, to fully explain the Examiner's position with respect thereto, including furnishing a detailed analysis of how the subject matter of any rejected claims differ, in an obvious manner only, from the subject matter of any claim(s) of another application or patent that forms a basis for such rejection.

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Upon remand, the Examiner should consider the references cited by Appellants in the IDS filed on February 23, 2007.

This Remand to the Examiner pursuant to 37 C.F.R. § 41.50(a)(1) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)) is made for further additional prior art findings and further consideration of a rejection.

REVERSED and REMANDED

sld/lis

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